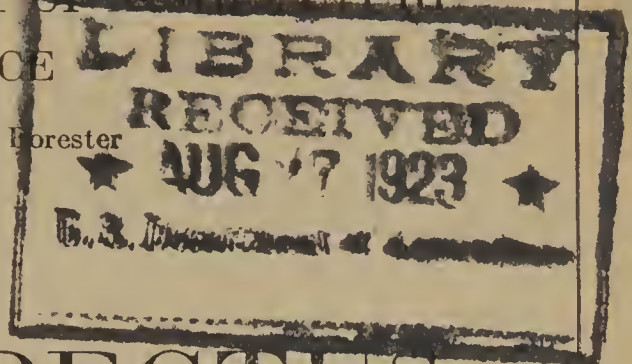


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UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

WILLIAM B. GREELEY, Forester



SALE PROSPECTUS

335,000,000 CUBIC FEET
NATIONAL FOREST

PULP TIMBER

WEST ADMIRALTY ISLAND
UNIT

TONGASS NATIONAL FOREST
ALASKA



1921

WASHINGTON
GOVERNMENT PRINTING OFFICE

1921

SALE PROSPECTUS.

335,000,000 CUBIC FEET NATIONAL FOREST PULP TIMBER.

INTRODUCTION.

The dates given in this prospectus are subject to change depending upon the date of sale. They were fixed on the assumption that the timber would be sold on June 30, 1921, the date of expiration of the advertising period. This tract of timber is now available for sale (for a limited time) without the delay incident to advertisement.

AREA, LOCATION, AND ACCESSIBILITY.

The pulpwood offered for sale is located on a strip of land varying in width from 2 to 4½ miles and extending along the west coast of Admiralty Island from the head of Hawk Inlet to Mitchell Bay. The area comprises complete and contiguous logging units, has a frontage on navigable water of 48 miles, and includes approximately 90,000 acres of merchantable timberlands. The gross area, which includes such nontimbered lands as muskeags and mountain slopes above the limits of commercial tree growth, is 150,000 acres.

The timber is situated on the east shore of Chatham Straits, in the southeastern section of Alaska. To Juneau, the capital and largest city of the Territory, it is 24 miles by water from the nearest point on the unit; to Seattle, Wash., 900 miles; to Prince Rupert, British Columbia, the western terminus of the Grand Trunk Railroad, 335 miles. Steamship service is maintained throughout the year between Seattle and Prince Rupert and all points in southeastern Alaska.

DESCRIPTION OF TIMBER.

The timber stand is estimated to be 335,000,000 cubic feet (equal to approximately 3,350,000 cords) of Sitka spruce, western hemlock, and other species; approximately 15 per cent is Sitka spruce, 85 per cent western hemlock, and a negligible percentage Alaska cedar.

The average stand per acre is 3,700 cubic feet.

Volumes are based on solid wood contents, 100 cubic feet of solid wood being equal to approximately one cord.

Both Sitka spruce and western hemlock make good grades of pulp, as has been demonstrated by the pulp mills of British Columbia,

Washington, and Oregon, which use large quantities of wood of these species.

The timber may be divided roughly into three general types, on a basis of age and quality, as follows:

1. OVERMATURE TREES WITH UNDERSTORY OF YOUNG TIMBER.

The overmature timber is hemlock, with a small percentage of spruce. The overmature spruce has a range in diameter from 2 to 6 feet, a total height of 150 to 225 feet, and carries little defect. The overmature hemlock varies in diameter from $2\frac{1}{2}$ to 5 feet, has a total height of 150 to 175 feet, is clean stemmed and well formed, but highly defective. Many hemlock trees of this character fall below the minimum requirements for merchantability of trees, as defined in the contract, and need not be cut.

The understory timber is composed largely of hemlock of excellent quality. The trees average 18 inches in diameter and 100 to 125 feet in height. The trunks are well formed, clear of branches, and show very little defect.

An occasional excellent young spruce is found.

Approximately 60 per cent of the timber removed from this type of forest will come from the understory.

This type covers almost 50 per cent of the area of the pulpwood unit. It averages 3,300 cubic feet per acre. Hemlock constitutes 90 per cent and spruce 10 per cent of the stand.

2. MATURE TIMBER.

The mature timber type is composed of dense stands of large, thrifty spruce and hemlock. It differs from the first type described in showing a much smaller percentage of defect and in not having the understory of younger timber.

The hemlock ranges from 2 to 4 feet in diameter, with an average of about $2\frac{1}{2}$ feet. The total height is 150 feet. The trunks are well formed and clear of branches to a point well into the top.

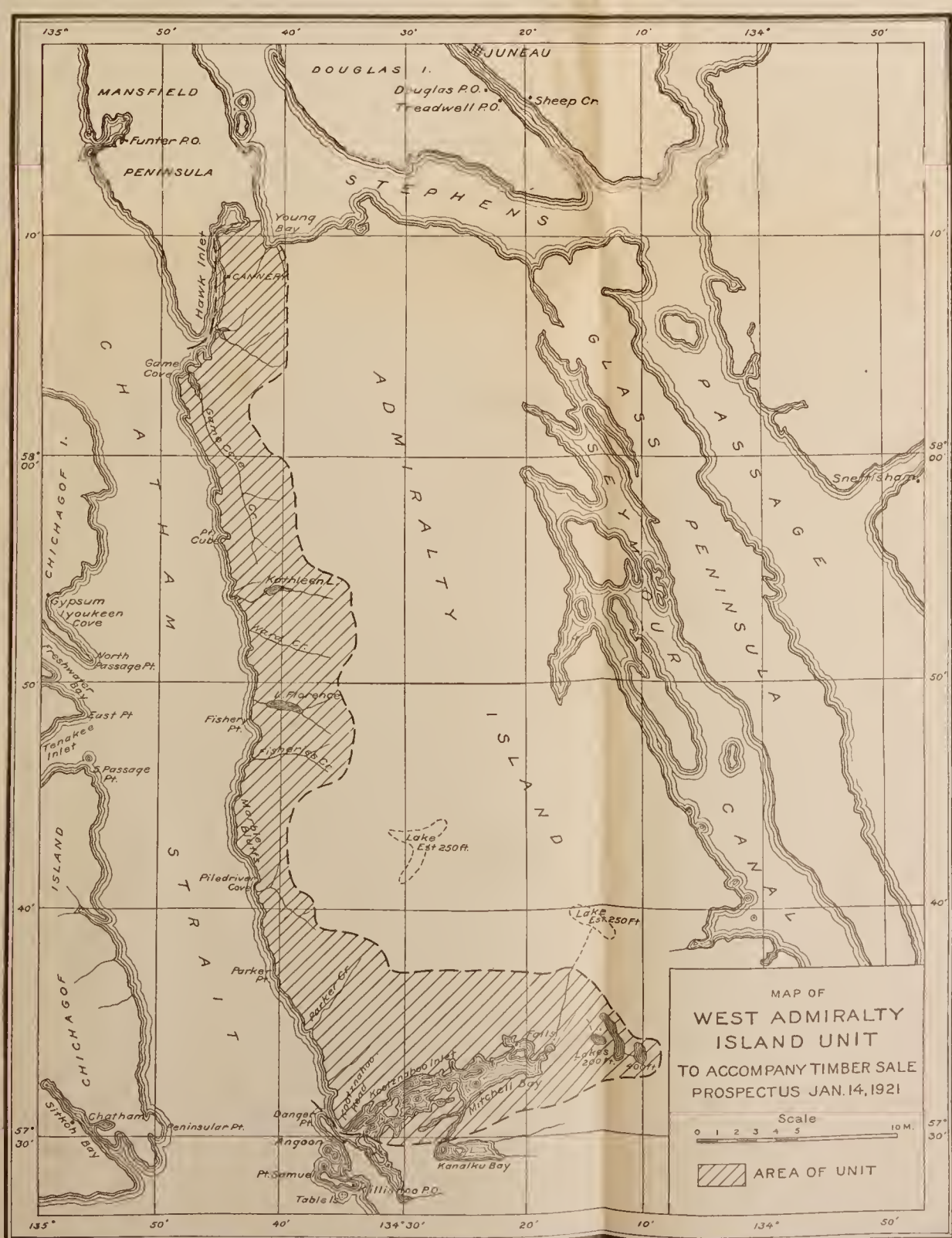
The spruce is of the same high quality as that in type No. 1, but averages somewhat smaller in diameter and forms a higher percentage of the stand.

The average stand per acre is about 4,000 cubic feet, of which hemlock forms 85 per cent and spruce 15 per cent.

This type covers approximately 25 per cent of the area of the pulpwood unit.

3. YOUNG HEMLOCK AND SPRUCE.

In the young hemlock and spruce type the trees range in diameter from 8 to 24 inches, with an average height of 125 feet. The trunks are clear of branches to a 6 or 8 inch top and have very little defect.



The trees grow in dense stands, 100 to the acre being quite common. It is a most excellent class of pulp timber.

The average stand per acre is approximately 5,000 cubic feet, of which hemlock forms 80 to 85 per cent and spruce 15 to 20 per cent.

This type covers about 25 per cent of the total merchantable timber area of the unit.

TOPOGRAPHY.

A range of high, snow-capped mountains which extends south from the head of Hawk Inlet to the drainage area of Mitchell Bay, paralleling the west coast of Admiralty Island at a distance inland of 3 to 5 miles, forms the east boundary of the unit between the points mentioned.

This section of the area is characterized by large creeks which originate in the high slopes of this range and flow northerly and westerly between steep lateral ridges. These ridges do not as a rule extend to tidewater, but terminate back of a series of low ridges, with much gentler slopes immediately along the coast. The valley floors of the main streams are usually wide and have an easy gradient from the beach to points well up on the headwaters.

The Mitchell Bay section of the unit consists largely of low-lying lands which are a part of a wide strip of rolling country extending into the middle of the island. The rear boundary of the unit is an arbitrary line so placed that only the timber reached readily from Mitchell Bay is included in this sale.

The overmature and mature timber types, indicated as types Nos. 1 and 2, may occur on all classes of sites, but are most in evidence on the slopes of the high ridges where they comprise the great bulk of the timber stand. In many cases the south slopes carry the mature timber and the north slopes the over-mature timber with the understory of younger trees. The altitudinal limit of commercial tree growth is from 1,800 to 2,000 feet, but in many places the timber does not extend above 1,500 feet.

The young hemlock and spruce type, indicated as type No. 3, occurs largely within 1 mile of tidewater. It forms an almost continuous strip one-half to 1 mile wide along the coast between Point Hepburn and Mitchell Bay.

GENERAL CONDITIONS OF SALE.

The stumpage alone is offered for sale, title to the land being retained by the United States.

Since the period of advertisement has expired, the timber will be awarded to any competent applicant who shows sufficient financial ability to fulfill the terms of the contract. This offer will be good for a limited time only. No offer will be considered of less than 60

cents per 100 cubic feet for spruce and Alaska cedar and 30 cents per 100 cubic feet for hemlock.

The bid stumpage prices will apply until April 1, 1928, at which time, and at five-year intervals thereafter, the Forester will readjust the rates to the extent of making them conform with the then prevailing prices being received for similar timber on the Tongass National Forest. A special provision precludes the establishment of any rates for the second period (April 1, 1928, to April 1, 1933) which exceed double the rates for the first period. (See introduction).

Timber will be paid for in advance installments of \$10,000 to \$20,000 each as cutting proceeds and on the basis of a scale or measurement made by the forest officers after cutting.

The sale period extends to March 30, 1953.

The purchaser is allowed until April 1, 1923, to begin cutting. This gives time to construct the necessary improvements and perfect the operating organization. A pulp-manufacturing plant of not less than 100 tons daily capacity must be established in Alaska not later than April 1, 1924.

All areas of merchantable timber will be clear cut with the exception that not to exceed 5 per cent of the volume of the timber on the unit may be reserved for reseedling purposes. Seed trees will ordinarily be left in groups in which no logging will be done.

The Forest Service reserves the right to require that débris be disposed of by lopping the tops and scattering the brush so that it lies close to the ground, or by some other method of disposal of no greater expense to the purchaser.

A surety bond of \$50,000 is required to insure compliance with the terms of the contract.

In view of the possibility that the sale area contains more merchantable timber than can be utilized by the purchaser's manufacturing plant during the period of the contract, the Forest Service agrees that if the periodic cutting requirements of the contract have been met the timber on any area or areas included in this agreement, which in the judgment of the district forester will be uncut on March 30, 1953, will, upon application, and at least six months prior to date of expiration of this agreement, be appraised and advertised for sale under sealed bids, at such minimum prices and under such requirements as the Forester shall deem necessary.

For more detailed information on conditions of sale, see form of contract on pages 12 to 20.

REQUIREMENTS PRELIMINARY TO AWARD.

Before the timber is awarded and the contract submitted to the successful applicant for execution, he will be required to file state-

ments showing (1) evidence of financial standing, (2) location of proposed manufacturing plant and general plan of power development, and (3) plan for the development of the timber unit.

Evidence of financial standing will be as follows:

1. The purchaser will be required to show assets in hand equivalent to at least 30 per cent of the initial investment in fixed and working capital as shown by the appraisal. Such assets must be clear of liabilities, which include bonds, mortgages, or notes, but not stock subscribed or paid in. Assets may be in the form of cash, improvements, equipment, or, in the case of corporations, subscribed stock, the last not to exceed one-half of the amount required for a satisfactory financial showing. Stock subscriptions must be by solvent subscribers satisfactory to the approving officer and in the amount specified, whether the stock be subscribed at par or not. Assets equivalent to subscribed stock may be accepted in the case of firms, partnerships, limited corporations, or personal or family arrangements. These may include written promises or agreements to furnish stated amounts of money for the enterprise from persons found to have ample resources to make them good. Not less than one-half of the amount required for a satisfactory financial showing should be available in cash, improvements, or equipment before the timber is awarded, and satisfactory guaranties from subscribers should be furnished that any balance in subscribed stock or promises to furnish capital, making up the 30 per cent, will be paid in not later than the beginning of the cutting period.

2. Bond issues and other forms of indebtedness are thus restricted to a maximum of 70 per cent of the capital needed.

3. In any case not less than 20 per cent of the fixed and working capital required must be furnished in some form by responsible men who will be actively identified with the management of the company as directors or executive officers.

4. The plan which will be followed in securing the remainder of the capital required, by sales of stock, bond issues, mortgages, etc., should also be set forth in the financial statement.

The amount required for a satisfactory financial showing as defined in the first paragraph is placed at \$500,000.

TIMBER AVAILABLE FOR FUTURE USE.

The policy of the Forest Service is to limit the development of wood-using industries on National Forest lands in a given region to the number that can be supplied with timber indefinitely. The primary purpose of this is to insure permanent industries for Forest communities by making a perpetual supply of raw material available for the use of established plants.

WATER POWER AND MANUFACTURING SITES.

The location of power sites determines the location of the manufacturing plant, as cheap log towage in the protected waters of this region makes the transportation of the wood more practical than the transmission of power for long distances, especially when, as is frequently the case, the latter would require submarine cables under wide sea channels.

This section of southeastern Alaska has many unappropriated power sites of suitable capacity for large pulp and paper plants. The power capacities of these sites have been investigated by officers of the Forest Service and Geological Survey. A number lend themselves to very economical development. High lakes are usually available for storage reservoirs. The low-water period is the three winter months. Information in regard to a number of available sites with estimated capacities can be obtained from the Forest Service.

Power development is subject to the regulations of the Federal Power Commission, Washington, D. C. The law creating the Federal Power Commission specifies in effect that power licenses shall be granted only for definite projects. Hence it will be necessary for an applicant for a power license to show that he has a definite market, or use for the power. In Alaska the manufacture of pulp and paper from the local timber is the most obvious use of the power. It is expected that the possession of at least a conditional award of timber will be required by the commission.

Sites for power house and manufacturing plant are usually adjacent and the license granted by the Federal Power Commission would ordinarily cover both. Should additional adjacent land be needed, or if the manufacturing site is for any reason apart from the power site, occupancy permits will be granted by the Forest Service, pending the elimination from the Forest of the site after substantial developments have been made. Title to the site can then be obtained from the Department of the Interior, which gives a priority right of acquisition to persons who have actually developed such sites.

LOGGING METHODS.

Machine logging is the only practical operating method in this area because of the large size of the trees, the amount of débris on the ground, the uneven ground surface, and the steep topography.

The systems now in use are ground skidding and high lead with high-powered donkey engines and heavy cables. It is likely that some overhead system would prove most economical for pulpwood logging. A good percentage of the timber can be placed in the water with only the logging engines by using two or three machines working

tandem. The creek valleys which extend inland for considerable distances will require logging railroads or log flumes leading to tide-water. The streams are not suitable for log driving. Timber in this region is ordinarily handled in full tree lengths.

Floating camps, which can be towed between logging chances, may be used.

The average length of logging season is eight months. Weather conditions will sometimes permit operations for a longer period.

A sale of this size will require a comparatively large plant to utilize the timber in the time given. The large amount of timber that must be removed in an eight-month logging season to supply the plant for the entire year, and the extensive woods improvement that must be installed to reach the timber in the larger creek valleys will require that the purchasing company own and operate an extensive logging outfit. It is not likely that contractors' sales would insure the amount of timber needed or that any contractor with sufficient capital to log the larger units could be found. Much of the logging immediately along the coast can be contracted. The Mitchell Bay region offers excellent opportunities for contract logging, as it contains a large amount of timber that can be logged by simple methods. These contract areas are so located that they need not be crossed later by the company's main logging operations.

After timber is placed in the water it can be made up into simple, inexpensive rafts for towing to the mills. The cost of towing at present is about 2 cents per thousand board feet per mile. For pulpwood it should not exceed $1\frac{1}{4}$ cents per 100 cubic feet per mile.

Large quantities of the more accessible timber on the West Admiralty Island unit can be delivered at the pulp mill at a cost, exclusive of stumpage, of \$7.50 per 100 cubic feet. For the area as a whole it is believed the cost of logs delivered, exclusive of stumpage, will be approximately \$10 per 100 cubic feet. These estimates are based on 1920 wage scales and material costs.

GENERAL FACTORS AFFECTING OPERATIONS IN ALASKA CLIMATE.

Southeastern Alaska is characterized by an extremely heavy rainfall which is fairly well distributed throughout the 12 months of the year. The annual precipitation at Juneau is about 90 inches.

The temperature is very equable and closely resembles that of the Puget Sound region. The winter temperature rarely falls below zero, with an extreme of about -10° F. Ports are open to ocean-going vessels throughout the year. No climatic factor will prevent continuous operation of a pulp plant.

LOCATION OF PLANTS.

In some cases plants can be located in existing towns. The location of power sites within a reasonable distance makes this possible. It is likely, however, that mills will be located largely at the power sites or at points near by, and on deep water which will permit the direct loading of large vessels at the plant dock. Numerous small bays and inlets are available for such sites.

Plants established in Alaska must be self-sustaining units. Complete repair shops equipped to make all kinds of major repairs to mill and woods machinery must be provided and a very extensive stock of spare parts must be maintained. Much floating equipment, such as tugboats, pile drivers, launches, and scows, will be required.

With the exception of plants located in existing towns, it will be necessary to provide good dwellings, commissary, school, and recreation facilities for employees.

LOG STORAGE.

In common with the practice of some other West Coast mills, logs may be stored in booms in protected bays until needed. Little difficulty will be encountered with logs freezing in storage booms if the sites are selected with care.

LABOR.

The Puget Sound labor markets will have to be depended upon to furnish the bulk of the woods labor and the unskilled mill labor. Seattle is the center for skilled men working in the lumber camps of western Washington where logging methods are similar to those used in Alaska. It is also an important unskilled labor center. The fishing industry of Alaska, which is seasonal, draws thousands of laborers of this type from Seattle every spring and returns them in the fall.

Labor in this section of Alaska should form little more of a problem than at other places in the Pacific Northwest if the facilities for comfortable living and recreation, which are now being installed in all first-class industrial towns and logging camps, are not neglected. Wages are somewhat higher than in the Puget Sound region.

TRANSPORTATION.

The Alaska Steamship Co. and the Pacific Steamship Co. provide good year-round passenger and freight transportation between Puget Sound cities and southeastern Alaska points. The Canadian Pacific Steamship Co. provides service from Vancouver and Prince Rupert, British Columbia, to this region. The last-named company is precluded by the United States shipping laws from carrying

passengers and freight between United States ports, including freight originating in American cities and sent by rail to Canadian ports for transshipment to American ports.

FUEL FOR STEAM PLANTS.

Fuel oil from the California fields is delivered in Alaska by tank steamers operated by the oil companies.

Coal from British Columbia and the State of Washington is delivered in Alaska by common carrier freight steamers.

LIMESTONE AND SULPHUR.

Southeastern Alaska contains an abundance of limestone that can be quarried at the edge of tidewater.

Deposits of iron pyrites, which offer a possible source of sulphur, are found at many places in this region.

FURTHER INFORMATION TO PROSPECTIVE PURCHASERS.

Detailed reports and maps of the area can be inspected and information in regard to the sale can be obtained at the office of The Forester, Washington, D. C.; the District Forester, Portland, Oreg.; or the District Forester, Juneau, Alaska.

The District Forester at Juneau will be glad to give all possible assistance in inspecting the pulpwood unit and available water-power sites.

[Form of advertisement which expired on June 30, 1921. Timber can now be sold for a limited time at private sale without readvertisement.]

335,000,000 CUBIC FEET NATIONAL FOREST TIMBER AND PULPWOOD FOR SALE.

Location and amount.—All the merchantable dead timber standing or down, and all the live timber marked or designated for cutting on an area embracing about 150,000 acres on the west side of Admiralty Island, extending from Young Bay on the northeast side of the island across to the head of Hawk Inlet, and thence southerly along the west side of the island to Kootsnahoo Inlet and Mitchell Bay, Tongass National Forest, Alaska, estimated to be 350,000,000 cubic feet, approximately equivalent to 3,350,000 cords, more or less, of Sitka spruce, hemlock, and other species of timber, approximately 85 per cent hemlock.

Stumpage prices.—Lowest rates considered, \$0.60 per 100 cubic feet for Sitka spruce and Alaska cedar and \$0.30 per 100 cubic feet for hemlock and other species. Rates to be readjusted every five years.

Deposit.—With bid \$10,000, to be applied on the purchase price, refunded, or retained in part as liquidated damages, according to the conditions of sale.

Final date for bids.—Sealed bids will be received by the district forester, Portland, Oregon, up to and including June 30, 1921.

The right to reject any and all bids is reserved.

Before bids are submitted full information concerning the character of the timber, conditions of sale, deposits, and the submission of bids should be obtained from the district forester, Portland, Oregon, or the district forester, Juneau, Alaska.

(Sample Agreement.)

UNITED STATES DEPARTMENT OF AGRICULTURE, FOREST SERVICE,
TIMBER SALE AGREEMENT.

(See Introduction.)

S
Sales, D-6, Tongass,
Admiralty Island,
(Pulpwood).

DESCRIPTION OF TIMBER.

SEC. 1. We, ———, a corporation organized and existing under the laws of the State of ———, having an office and principal place of business at ———, State of ———, hereby agree to purchase from an
Area and loca- area of about 90,000 acres to be definitely designated on the ground
tion. by a forest officer prior to cutting, on Admiralty Island, extending from Young Bay on the northeast side of the island across to the head of Hawk Inlet and thence southerly along the west side of the island to Kootsnahoo Inlet and Mitchell Bay, as definitely designated on the attached map, which is hereby made a part of this agreement, within the Tongass National Forest, at the rate or rates, and in strict conformity with all and singular the requirements and conditions hereinafter set forth, all the dead timber standing or down and all the live timber marked or designated for cutting by a forest officer, merchantable, as hereinafter defined, for pulpwood, saw logs, and for other forest products customarily produced in Alaska. The estimated amount to be cut under the provisions of sections 7 and 8 is—

Amount. 335,000,000 cubic feet of Sitka spruce, hemlock, and other species, approximately 15 per cent Sitka spruce and 85 per cent hemlock.

Provided, That in designating the area to be cut and the areas to be reserved from sale as specified in section 2 (h) herein, units bearing timber suitable for local use may be excluded to a total amount not exceeding 1,600,000 cubic feet, or equivalent amount in other units of measure if, in the judgment of the forest supervisor, the operation of the purchaser is not interfered with thereby.

Provided further, That the purchaser shall establish in Alaska, not later than April 1, 1924, a pulp-manufacturing plant or plants with a daily capacity of not less than 50 tons, which daily capacity shall be increased, not later than April 1, 1926, to a total of at least 100 tons. Failure of the purchaser to make the first installation by the date first above specified shall render this agreement subject to cancellation in the discretion of the Forester; and failure to increase the daily capacity of the plant or plants by the second date above specified will render this agreement subject to such a reduction in area and volume of timber as will, in the judgment of the Forester, be commensurate with the manufacturing capacity established.

PAYMENTS.

SEC. 2 (a). We do hereby, in consideration of the sale of this timber to us, promise to pay to the First National Bank of Juneau, Alaska (United States depository), or such other depository or officer as shall

hereafter be designated, to be placed to the credit of the United States, for the timber at the following rates:

For all timber cut prior to April 1, 1928, at the following rates:

——— per 100 cubic feet for Sitka spruce and Alaska cedar, and

——— per 100 cubic feet for hemlock and other species.

Initial rates.

For all timber cut on or after April 1, 1928, and prior to April 1, 1933, at such rates as shall be designated by the Forester within thirty days preceding April 1, 1928;

Reappraisals.

For all timber cut on or after April 1, 1933, and prior to April 1, 1938, at such rates as shall be designated by the Forester within thirty days preceding April 1, 1933;

For all timber cut on or after April 1, 1938, and prior to April 1, 1943, at such rates as shall be designated by the Forester within thirty days preceding April 1, 1938;

For all timber cut on or after April 1, 1943, and prior to April 1, 1948, at such rates as shall be designated by the Forester within thirty days preceding April 1, 1943;

And for all timber cut on or after April 1, 1948, at such rates as shall be designated by the Forester within thirty days preceding that date.

Except as hereinafter provided, material below merchantable size under the terms of this agreement which is cut and removed at the option of the purchaser shall be paid for at the rates then in effect for merchantable material. Material unmerchantable on account of defects may be removed without charge in the discretion of the district forester.

(b) The Forester shall reappraise and within thirty days before each of the foregoing dates designate the value of each species in consideration of current operating conditions and markets in southeastern Alaska, including the operation of the purchaser, such reappraisals to include the timber on the entire tract, and to be based upon an equitable margin for profit and risk to the purchaser under the operating conditions prevailing throughout the region.

Provided, That the stumpage price for any species fixed upon any reappraisal date shall not exceed the arithmetical average of the prices received for National Forest stumpage of that species in southeastern Alaska during the twelve months preceding the date of reappraisal, as shown by sale contracts executed during that period; and

Provided further, That in no event shall the stumpage price for any species established by the Forester to apply during the period from April 1, 1928, to April 1, 1933, exceed double the initial rate for that species as stated above.

(c) If any material cut under this agreement and merchantable under its terms is manufactured or sold by the purchaser for other uses other than pulp or its products, the Forester may upon the next reappraisal date establish a special stumpage rate for each class of material so manufactured or sold during the succeeding period, which rate, in accordance with the ratio per one hundred cubic feet currently used by the Forest Service, shall be not less than the initial stumpage price fixed herein and shall allow the purchaser an equitable margin for profit and risk under current selling prices and costs of production in the region defined above.

(d) It is further agreed that the Secretary of Agriculture will, upon written application from the purchaser showing good and sufficient

reasons therefor and specifically the existence of a serious emergency arising from changes in market conditions since the last reappraisal, at his option, when action of either character is necessary to relieve the purchaser from hardship, either—

(1) Redetermine and establish the stumpage rates and designate a date when the rates as redetermined shall be effective, which date shall be within six (6) months of the date of application; or

(2) Grant an extension of time within which the respective amounts of timber specified in Section 4 shall be removed, not to exceed the total period allowed for cutting all the timber.

Any stumpage rates redetermined upon application to the Secretary shall be determined in accordance with the methods and under the terms above set forth, and shall apply only during the remainder of the five-year period then current, when the rates shall be regularly designated after reappraisal.

(e) In no event, however, shall the stumpage rates for products from material whose utilization is required by this agreement as established upon any date above named, or upon application from the purchaser, be less than those specified herein to be paid for timber cut prior to April 1, 1928.

(f) It is further agreed that at the date of any reappraisal of stumpage prices the Forester may require such modifications in the sections numbered 7, 8, 13, 15, 16, 17, 18, 19, 21, 22, 23, and 24 in this agreement as are necessary, in his judgment, to protect the interests of the United States. Such modifications shall be limited to requirements contained in the then current timber sale contracts in southeastern Alaska and shall be practicable under the existing equipment and organization of the purchaser. Any additional operating costs entailed by such modifications, as ascertained by the Forester, shall be taken into consideration as a factor in reappraisals.

(g) Payments shall be made in advance installments of not less than ten thousand dollars (\$10,000) and not more than twenty thousand dollars (\$20,000) each when called for by the forest officer in charge, except just before the completion of the sale or a period when cutting operations are to be suspended for at least three (3) months, when the amount of the payment shall be designated in writing by the forest supervisor, credit being given for the sums, if any, heretofore deposited with the said United States depository or officer in connection with the sale.

(h) It is further agreed that in the event the requirements of section 4 of this agreement are complied with to the satisfaction of the Forester, the timber on any area or areas included in this agreement, which in the judgment of the district forester will be uncut on March 30, 1953, will, upon application, and at least 6 months prior to date of expiration of this agreement be appraised and advertised for sale under sealed bids, at such minimum prices and under such requirements as the Forester shall deem necessary.

PERIOD OF CONTRACT.

Cutting period. SEC. 3. The cutting and removal of timber under this agreement shall begin not later than April 1, 1923, and unless extension of time is granted, all timber shall be cut and removed and the requirements of this agreement satisfied on or before March 30, 1953.

SEC. 4. Unless such amounts are reduced in writing by the district forester at least 25,000,000 cubic feet shall be cut prior to April 1, 1928; at least 60,000,000 cubic feet shall be cut prior to April 1, 1933; at least 100,000,000 cubic feet shall be cut prior to April 1, 1938; at least 150,000,000 cubic feet shall be cut prior to April 1, 1943; and at least 200,000,000 cubic feet shall be cut prior to April 1, 1948. Periodic cuts.

TITLE.

SEC. 5. The title to all timber included in this agreement shall remain in the United States until it has been paid for, and scaled, measured, or counted as herein provided. Title to timber.

SEC. 6. Timber upon valid claims and all timber to which there exists valid claim under contract with the Forest Service is exempted from this sale. Timber on claims.

DESIGNATION.

SEC. 7. Timber shall be designated for cutting as follows: The exterior boundaries of the sale area shall be marked and all seed trees and groups of seed trees, and areas considered unmerchantable or inaccessible in the judgment of the forest officer in charge within these boundaries, shall be plainly marked or posted. All other timber shall be considered as designated for cutting. Groups of trees or single trees may be reserved for seed wherever it may be deemed necessary by the forest officer in charge: *Provided*, That not more than five per cent (5%) of the merchantable volume on the sale area shall be so reserved. All other merchantable timber shall be cut. Timber reserved in marking.

SEC. 8. The approximate minimum diameter limits outside bark at a point $4\frac{1}{2}$ feet from the ground to which timber shall be designated for cutting under the terms of this agreement are fourteen (14) inches for Alaska cedar and eight (8) inches for all other species. Minimum diameter limits.

LOGGING.

SEC. 9. As far as may be deemed necessary for the protection of National Forest interests, the plan of logging operations on the respective portions of the sale area shall be approved by the forest officer in charge. When operations are begun on any natural logging area, the cutting on that area shall be fully completed to the satisfaction of the forest officer in charge before cutting may begin on other areas, unless such cutting is authorized in writing with the requirement that cutting shall be completed on the area left unfinished as soon as practicable. After decision in writing by the forest officer in charge that the purchaser has complied satisfactorily with the contract requirements as to specified areas, the purchaser shall not be required to do additional work on such areas. Plan of logging operations.

SEC. 10. All and only designated live trees shall be cut. No timber shall be cut until paid for, nor removed from the place or places agreed upon for scaling until scaled, measured, or counted by a forest officer. No cutting before payment.

SEC. 11. No unnecessary damage shall be done to young growth or to trees left standing, and no trees shall be left lodged in the process of felling. Undesignated trees which are badly damaged in logging shall be cut if required by the forest officer in charge. Damage to young growth.

SEC. 12. Undesignated live trees which are cut, or injured through carelessness, and designated trees left uncut on areas on which logging has ceased, shall be paid for at double the current price for the class of Penalty for carelessness and waste.

material which they contain fixed in accordance with the terms of this agreement. Timber wasted in tops or stumps, designated timber broken by careless felling, and any timber merchantable, according to the terms of this agreement, which is cut and not removed from any portion of the cutting area when operations on such portion are completed, or before this agreement expires or is otherwise terminated, shall be paid for at the current price for such material. The amounts herein specified shall be regarded as liquidated damage and may be waived in the discretion of the forest officer in charge in accidental or exceptional cases which involve small amounts of material. Any timber remaining on the sale area at the expiration or termination of this agreement, for which payment as specified in this section has been made to the United States, may be removed within six months from such date of expiration.

Stump height
and top diameter.

SEC. 13. All cutting shall be done with a saw when practicable. Stumps shall be cut so as to cause the least practicable waste and not higher than eighteen (18) inches on the side adjacent to the highest ground for all trees with a diameter of twenty-four (24) inches and under at a point $4\frac{1}{2}$ feet from the ground, and not higher than twenty-four (24) inches on the side adjacent to the highest ground for all trees with a diameter over twenty-four (24) inches at the point described, except in unusual cases when in the discretion of the forest officer in charge this height is not considered practicable; all trees shall be utilized to as low a diameter in the tops as practicable and to a minimum diameter of ten (10) inches for Alaska cedar and six (6) inches for all other species when merchantable in the judgment of the forest officer in charge. The log lengths shall be varied so as to secure the greatest possible utilization of merchantable material.

Wood used as
fuel.

SEC. 14. Wood taken from tops or unmerchantable timber for use as fuel in connection with logging operations shall be allowed free of charge.

SCALING AND MERCHANTABILITY.

Measurement.

SEC. 15. Material shall be piled, rafted, or skidded for scaling, measurement, or count if required by the forest officer in charge and in such manner as he shall direct. Logs will be measured in cubic feet on the basis of the length and the average middle diameter inside the bark taken to the nearest inch, or, if it is impracticable to secure the average middle diameter, on the basis of the length and the average of the diameters inside bark at the two ends of the log, each measured to the nearest inch.

SEC. 16. If any pulpwood is cut in the form of cordwood instead of in logs, it shall be measured in cords of 128 cubic feet of stacked wood, and the number of cords converted into cubic feet at the ratio of one cord equalling 100 cubic feet unless or until, as the result of actual measurements, the district forester and the purchaser shall have agreed on the use of some other ratio. Such material shall be piled for measurement as the forest officer in charge shall direct.

Scaling length.

SEC. 17. In obtaining the cubic contents of logs the maximum measuring length may, in the discretion of the district forester, be thirty-two feet; greater lengths may be measured as two or more logs.

SEC. 18. Any tree which in the judgment of the forest officer contains one or more logs merchantable as defined in section 19, and having a net total merchantable volume of 25 per cent or more of the total volume of the tree, shall be considered merchantable under the terms of this agreement.

Definition of merchantable tree.

SEC. 19. All spruce logs are merchantable under the terms of this agreement which are not less than 16 feet long, at least 6 inches in diameter inside bark at the small end, and after deductions for visible indications of defect are estimated to contain $33\frac{1}{3}$ per cent sound material; all Alaska cedar logs are merchantable under the terms of this agreement which are not less than 16 feet long, at least 10 inches in diameter inside bark at the small end, and after deductions for visible indications of defect are estimated to contain $33\frac{1}{3}$ per cent sound material; and all logs of hemlock and other species are merchantable under the terms of this agreement which are not less than 16 feet long, at least 6 inches in diameter inside bark at the small end, and after deductions for visible indications of defect are estimated to contain 50 per cent sound material: *Provided*, That the $33\frac{1}{3}$ per cent aforesaid in spruce and Alaska cedar logs and the 50 per cent aforesaid in hemlock and other species shall be so located in the log as to permit the use of the sound material for pulp manufacture under the pulp manufacturing methods used in efficiently conducted pulp operations in Alaska.

Merchantability defined.

SEC. 20. On request, copies or abstracts of the scale reports will be furnished to the purchaser after they have been approved by the forest supervisor.

Scale reports.

BRUSH DISPOSAL.

SEC. 21. The district forester may require that all tops shall be lopped and all brush scattered so as to lie close to the ground and away from standing trees and reproduction, or any other method of disposal the cost of which shall not be in excess of this method.

Disposal of brush.

FIRE PROTECTION.

SEC. 22. During the time that this agreement remains in force the purchaser shall independently do all in his power to prevent and suppress forest fires on the sale area and in its vicinity, and shall require his employees, contractors, and employees of contractors to do likewise. Unless prevented by circumstances over which he has no control, the purchaser shall place his employees, contractors, and employees of contractors at the disposal of any authorized forest officer for the purpose of fighting forest fires, with the understanding that unless the fire-fighting services are rendered on the area embraced in this agreement or on adjacent areas within one mile, payment for such services shall be made at rates to be determined by the forest officer in charge, which rates shall be not less than the current rates of pay prevailing in the said National Forest for services of a similar character: *Provided*, That the maximum expenditure for fire fighting without remuneration in any one calendar year, at rates of pay determined as above, shall not exceed \$10,000, including the furnishing of special trains or other special service as required; and further provided, that if the purchaser, his employees, contractors, or employees of contractors are directly or indirectly responsible for the origin of the fire,

Assistance in fighting fires.

no payment shall be made for services so rendered, nor shall the cost of such services be included in determining said maximum expenditure for any calendar year.

It is further agreed that except in serious emergencies as determined by the forest supervisor the purchaser shall not be required to furnish more than 100 men for fighting fire outside of the area above specified, and that any employees furnished shall be relieved from fire fighting on such outside areas as soon as it is practicable for the forest supervisor to obtain other labor adequate for the protection of the National Forest.

Spark arresters. SEC. 23. If required by the forest supervisor in writing, all donkey engines or other steam-power engines shall, during the period from June 1 to October 1 of each year, burn oil, or shall be equipped with spark arresters acceptable to the forest officer in charge, six (6) 12-quart pails, six (6) shovels, and a constant supply of not less than the equivalent of twelve (12) barrels of water, this equipment to be suitable for fire-fighting purposes and kept in serviceable condition.

Burning of refuse. SEC. 24. During the period from June 1 to October 1 of each year no refuse, brush, slash, or débris shall be burned without the written consent of the forest officer in charge.

Transportation on logging roads. SEC. 25. Officers of the Forest Service, fire fighters, and other regular and temporary employees shall be transported free of charge over logging roads operated in connection with this sale not common carriers, and shall be permitted to ride upon logging trains and engines or to operate speeders when traveling upon official business. Forest officers and other employees riding on logging trains, engines, or speeders shall do so at their own risk, and the owner of the railroad expressly reserves the right to enter into an agreement with such persons before entering upon said trains or engines, or before operating a speeder, releasing the said owner from liability for any injury sustained by them in riding on said trains, engines, or speeders, arising from any cause whatsoever. In emergencies arising from forest fires, special trains shall be furnished to officers and employees of the Forest Service.

OCCUPANCY.

Logging improvements. SEC. 26. The purchaser is authorized to build on National Forest land sawmills, camps, railroads, roads, and other improvements necessary in the logging or the manufacturing of the timber included in this agreement: *Provided*, That all such structures and improvements shall be located and operated subject to such regulation by the forest officer in charge as may be necessary for the protection of National Forest interests. The continuance or operation of such improvements on National Forest land after this agreement has terminated shall be subject to authorization by permit or easement under United States laws, and unless such authorization is secured all improvements not removed shall become the property of the United States at the expiration of six months from the termination of this agreement.

Construction of timber. SEC. 27. All merchantable timber used in the construction of buildings, roads, and other structures necessary in connection with the cutting and removal of the timber covered by this agreement shall be paid for at the current rates for such material under this agreement. Cull material and unmerchantable tops of any species may be used for such purposes without charge and shall be left in place where used.

Sanitation of camps. SEC. 28. Logging camps, mills, stables, and other structures, and the ground in their vicinity, shall be kept in a clean, sanitary condition.

and rubbish shall be removed and burned or buried. When camps or other establishments are removed from one location to another or abandoned, all débris shall be burned or otherwise disposed of as the forest officer in charge shall direct.

MISCELLANEOUS.

SEC. 29. At all times when logging operations are in progress the purchaser shall have at the main camp for his employees working on the sale area a representative who shall be authorized to receive, on behalf of the purchaser, any or all notices and instructions in regard to work under this agreement given by the forest officer in charge, and to take such action thereon as is required by the terms of this agreement. Representative of purchaser.

SEC. 30. Complaints by the purchaser arising from any action taken by a forest officer under the terms of this agreement shall not be considered unless made in writing to the forest supervisor having jurisdiction within thirty (30) days of the alleged unsatisfactory action. The decision of the Secretary of Agriculture shall be final in the interpretation of the regulations and provisions governing the sale, cutting, and removal of the timber covered by this agreement. Complaints by purchaser.

But nothing herein shall be construed to prevent the institution by the purchaser of any available legal proceedings if he deems the stumpage prices as determined by reappraisal by the Forester and fixed by the Secretary of Agriculture upon appeal to be inequitable under the provisions hereof.

SEC. 31. All operations on the sale area, including the removal of scaled timber, may be suspended by the district forester, in writing, if the conditions and requirements contained in this agreement are disregarded, and failure to comply with any one of said conditions and requirements, if persisted in, shall be sufficient cause for the termination of this agreement: *Provided*, That the Forester may, upon reconsideration of the conditions existing at the date of sale and in accordance with which the terms of this agreement were fixed, and with the consent of the purchaser, terminate this agreement, but in the event of such termination the purchaser shall be liable for any damages sustained by the United States arising from the purchaser's operations hereunder. Suspension of operations.

SEC. 32. All the books pertaining to the purchaser's logging operation and milling business shall be open to inspection at any time by a forest officer authorized by the district forester to make such inspection with the understanding that the information obtained shall be regarded as confidential. Inspection of books.

SEC. 33. The term "officer in charge" wherever used in this agreement signifies the officer of the Forest Service who shall be designated by the proper supervisor or by the district forester to supervise the timber operations in this sale. Definition of "forest officer."

SEC. 34. No Member of or Delegate to Congress, or Resident Commissioner, after his election or appointment, and either before or after he has qualified, and during his continuance in office, shall be admitted to any share or part of this contract or agreement, or to any benefit to arise thereupon. Nothing, however, herein contained shall be construed to extend to any incorporated company, where such contract or agreement is made for the general benefit of such incorporation or Act of March 4, 1909.

company. (Section 3741, Revised Statutes, and sections 114-116, act of March 4, 1909.)

Contract non-
assignable.
Authority to
modify agree-
ment.

SEC. 35. This agreement shall not be assigned in whole or in part.

SEC. 36. The conditions of the sale are completely set forth in this agreement, and none of its terms can be varied or modified except in writing by the forest officer approving the agreement, or his successor or superior officer, and in accordance with the regulations of the Secretary of Agriculture. No other forest officer has been or will be given authority for this purpose.

SEC. 37. And as a further guarantee of a faithful performance of the conditions of this agreement we deliver herewith a bond in the sum of fifty thousand dollars (\$50,000.00), and do further agree that all moneys paid under this agreement shall, upon failure on our part to fulfill all and singular the conditions and requirements herein set forth, or made a part hereof, be retained by the United States to be applied as far as may be to the satisfaction of our obligations assumed hereunder. We do further agree that should the sureties on the bond delivered herewith or on any bond delivered hereafter in connection with this sale become unsatisfactory to the officer approving this agreement, we will within thirty (30) days of receipt of demand furnish a new bond with sureties solvent and satisfactory to the approving officer.

Signed in duplicate this.....day of....., 192...

[Corporate seal.]

By.....

Its

Witnesses:.....

.....

Approved at under the above conditions,
....., 192...

.....

District Forester

